

Dear Dr. Lederberg:

One of a recent series of syndicated articles running in a local paper quotes you as saying (and "with some apprehension"): "There is nothing to suggest any difficulty about accomplishing (cloning) in mammals and man, though it will be rightly admired as a tour de force when it is first implemented." Since my igno-rance of genetic auplication and artificial insemination and parturition is near-abymsmal, I find it impossible to refute that manufactured twinning is pragmatically possible, and so must accept your eminent and laureate authority. What I do question is that it would achieve the ostensible social and cultural goals of its ostensible purpose; and this is what I would like to devote a brief mention to, and again on the socio-cultural rather than the biochemical level, for the reason given above.

Juding from the cited source, and from similar articles in magazines across the country in recent years, (though I recognize the inadequacy of such referrals), it may seen be possible at a time not-too-far-off to produce a cloned duplicate of a great statesman from his body cells to carry on his work for him. after his death. Barring correction, it seems to me that such a plan betrays a lamentable lack of insight as to the social conditions that coagulate to throw up a great statemsmen on the world stage. Whether high-born or low-born, whether charismatic or plain-living, whether fantastically ingenious or pedestrianly capable, we may say with some assurance that he almost always arises out of a social and cultural process of criss-crossed influences, rough-and-tumble in-fighting, childhood adversities and many other such forces that the clone (though resembling him constitutionally and otherwsise) would bequite ignorant. The point of environmental determinism is taken up in the series, and has undoubtedly been granted enormous consideration in learned studies outside my purview, but what may not have been allotted an equal consideration is that the entire complex of personality traits, mass attitudes, mythical beliefs that makes up that peak of social statics that we sum up under the label "great statesman" is basically a pre-scientific occurrence (though surviving into the scientific age), and that to attempt to reproduce his influence or beneficence or merit, either in this or more conventional ways, only brings up the ultimate questions of means and ends, first things and last things, priorities and supercessions. It is, in brief, a matter of anthropological eschatology that is here being rehearsed by the principle in the present discussion shout over future overhauls of basic life-processes, and the momentous issues that it generates can perhaps best be illustrated by medical and biochemical developments far less recent and less revolutionary than even those heart-transplants that we all now take for granted.

As long ago as the thirties, a newage of medical miracles through chemical therapies for purely non-functional disorders was hailed by many physicians and researchers genuinely concerned about the social and emotional shortcomings suffered by short boys, fat women, facially-disfigured people, etc. Although the rosy Utopian prospects then hinted at have not been quite realized, a great many advances of unquestioned medical and therapeutic utility have been achieved so that the small can be lifted up, the gigantic can be evened off, and all women will attain to some sort of equality

parity in being of an equally fetching avoirdupois. Just what advantage there is for a ruggedly athlete or an ench svelte enchanteress in a world in which everyone else of his or her sex has exactly the same prized qualities is a somewhat obscure point (since, of course, they depend for their high-offer valuation on their complete or partial <u>lack</u> by others); but then the apogee of the new order has not yet seen feached, and perhaps an intermediate stage or homeostatic balance may be hoped for, in which all men will stand at a roughly similar stature proportionate to their social heeds; and the same will be true of feminine girth. Nevertheless, the question will still have to be asked: inasmuch as the archetypal configurations associated with by and stimulated by these conditions or features - such as "the little Caesar of the basketball court" or "Big Bertha of #the office force" and countless others - will continue in full force in the eddies of conscious attitude and orientation; and inasmuch as the coldoquial and even clinical terms for them recreate the ancient, mythopoeic and protolinguistic polarities of choice and preference which largely schedule the reactions to them will remain unchanged; and as no sen remedial action has yet been programmed (or in my opinion could be) to unkink the 🖈 🕊 pressures of this primal psychic stereotypy, who then will incarnate these archetypal roles as was done before in order to satisfy the social law of averages so strongly derailed by this novus ordo saeclorum? Apparently, it will be those that are slightly smaller than usual or a bit heavier than the norm - unless, of course, basic, far-reaching changes are coincidentally planned to strike at the gears of the value-producing or reaching mechanism itself...and this would mean coming close to abolishing all standards, all preferences, all values.

In turning back to the main topic, I wish to take note once more of my recognizance that not only the mechanics and technics of cloning are now receiving earnest and anxious study such as by geneticists and biologists such as yourself and Professor Rostand (whose dour warnings were also quoted in the article) but its ethics, esthetics and metaphysics. I would only suggest and recommend some attention to its eschatology as well. Even with a heyday of genetic control storming all fronts and vanquishing all opposition, noone would ever be able to forget that behind that endless chain of reduplicated identicals was a genuine, prototypal original who was that in every sense of the term...an original man; someone who had come to birth by the happenstance of mating and marriage-choices completely unregularized by scientific strategy, and reached his adult fulfillment by running an obstacle race of diseases, accidents and boyhood prakes, with death waiting at every turn, amplind chance spinning the roulette wheel that ledstormed to his apotheosis of reduplicated sanctity. Science itself has come to its modern prominence by just such a rough-and-tumble and 9102 ARE eriss-cross of interplay with religious, political and other institutions not fundamentally scientific; and every act of science, as I see it, is rooted in an inherited or integral judgement or preference, such as that it is better to cure sick people than to let them die (even if they are criminals), or that it is better to win a war than to lose it (even if takes an A-bomb). Should science, and the civilization it predominates, stray too far from its chaotic and and indeterminate has and beginnings are well with the best of intention. and indeterminate base and beginnings, even with the best of intentions, it would suffer the sorry fate of being forced to live of its past, or else, like the fabled animal of self-destructive fame, gnaw off the branch of the tree on which it sits.

H.R. Schorin 3661 S.W. 11th st. Miami, Fla. 33135 H. N. Johnn